Search Request Form Scientific and Technical Information Center

Art Unit: 1623 Phone Number	200 4620 0 1 1	65753 Date: 08/01/02
1000 1 tame	er: 308-4039 Serial	No. 09/640,530 .
Mail Box & Bldg/Room Loc: 8	D-14/CM-1 Results F	Format Preferred: PAPER
[<u>8B-19/CM-1</u>]	• • • • • • • • • • • • • • • • • • • •	
If more than one search is subm	nitted, please prioritize *************	searches in order of need
Please provide a detailed statement of the subject matter to be searched. Include the acronyms, and registry numbers, and commany terms that may have a special meaning known. Please attach a copy of the covered to th	e search topic, and describe a he elected species or structur abine with the concept or ut ag. Give examples or releva	as specifically as possible the res, key words, synonyms, ility of the invention. Define nt citations authors etc. if
Title of Invention: See attached	d conv of claims	
Inventors (please provide full n	names): See attached	conv of claims
Earliest Priority Filing Date:	09/30/99	copy of claims.
Please search for the 101 for specific embeded also search for damage resulting from administration of a corneed thereof. Please also search for compounds of claim 1 Elected Claims: 1-29, 4	odiments. methods of reischemia or heim npound of claim methods of ma . 1-81 and 101.	educing tissue ypoxia by 1 to a host in aking the
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jan.delaval@uspto.gov

=> fil reg

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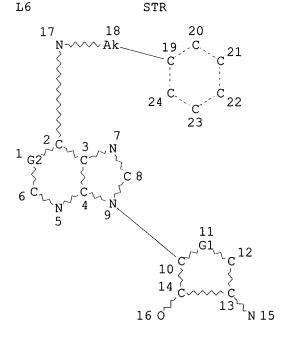
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VAR G1=O/C/S VAR G2=C/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

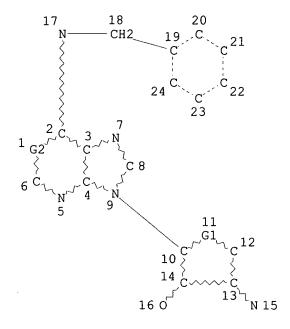
GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L8 267 SEA FILE=REGISTRY SSS FUL L6

L9 STR

Jan Delavai Reference Librarian Biotechnology & Chemical Library CM1 1E07 – 703-308-4498 jan.delaval@uspto.gov

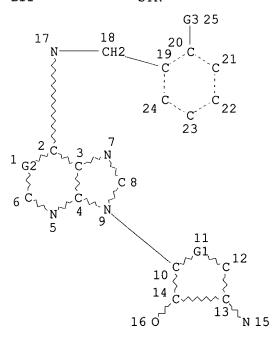


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STEREO ATTRIBUTES: NONE

L10 142 SEA FILE=REGISTRY SUB=L8 SSS FUL L9 L11 STR



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VAR G3=O/S/N
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25
STEREO ATTRIBUTES: NONE
T.12
            137 SEA FILE=REGISTRY SUB=L10 SSS FUL L11
L13
              5 SEA FILE=REGISTRY ABB=ON PLU=ON L10 NOT L12
L14
              2 SEA FILE=REGISTRY ABB=ON PLU=ON L13 AND (C17H2ON6O3 OR
                C17H19IN6O3)
            139 SEA FILE=REGISTRY ABB=ON PLU=ON (L12 OR L14)
T.15
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     (FILE 'REGISTRY' ENTERED AT 15:25:13 ON 07 AUG 2002)
L15
            139 S L12, L14
     FILE 'HCAOLD' ENTERED AT 15:34:01 ON 07 AUG 2002
              5 S L15
L16
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Compounds:
     FILE 'HCAPLUS' ENTERED AT 15:34:13 ON 07 AUG 2002
              2 S L15
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              0 S L15
     FILE 'REGISTRY' ENTERED AT 15:36:45 ON 07 AUG 2002
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              1 S L15 AND CAOLD/LC
     FILE 'HCAOLD' ENTERED AT 15:36:58 ON 07 AUG 2002
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     FILE 'HCAPLUS' ENTERED AT 15:37:33 ON 07 AUG 2002
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              8 S E1-E5
L24
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     FILE 'REGISTRY' ENTERED AT 15:39:22 ON 07 AUG 2002
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L22 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
     98177-71-0 REGISTRY
RN
     Adenosine, 3'-amino-N-benzyl-3'-deoxy- (6CI, 7CI) (CA INDEX NAME)
CN
FS
     STEREOSEARCH
```

Absolute stereochemistry.

BEILSTEIN*, CAOLD

(*File contains numerically searchable property data)

C17 H20 N6 O3

STN Files:

CAOLD

MF

SR

LC

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> fil hcaold FILE 'HCAOLD' ENTERED AT 15:39:37 ON 07 AUG 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

PRE-1967 CHEMICAL ABSTRACTS FILE WITH HOUR-BASED PRICING FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

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L16 ANSWER 1 OF 5 HCAOLD COPYRIGHT 2002 ACS
AN CA59:5251g CAOLD
    synthesis and reactions of 3'-amino-3'-deoxyribosides of 6-chloropurine
ΑU
    Goldman, Leon; Marsico, J. W.
IT
      72-94-6
                6044-48-0 14125-61-2 34522-42-4 36043-68-2 38228-99-8
    71528-47-7 93142-34-8 96535-48-7
                                       97000-94-7 97790-70-0 97790-71-1
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    105015-83-6 106216-76-6 107927-09-3
   98177-71-0
ΙT
RN
    98177-71-0 HCAOLD
CN
    Adenosine, 3'-amino-N-benzyl-3'-deoxy- (6CI, 7CI) (CA INDEX NAME)
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L16
    ANSWER 2 OF 5 HCAOLD
                           COPYRIGHT 2002 ACS
AN
   (CA57:10372h CAOLD
ΤI
    nucleotide and polynucleotide synthesis in Trypanosoma cruzi - (VII)
    precursors of the pyrimidine nucleotides
ΑU
    Rey, Louis; Fernandes, J. F.
ΙT
     6088-33-1
               71528-47-7 98177-71-0 98346-67-9 98579-00-1
    98177-71-0
ΙT
     98177-71-0 HCAOLD
RN
    Adenosine, 3'-amino-N-benzyl-3'-deoxy- (6CI, 7CI) (CA INDEX NAME)
CN
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L16
    ANSWER 3 OF 5 HCAOLD COPYRIGHT 2002 ACS
ΑN
     CA53:8175d CAOLD
TΙ
     aminodeoxyglycosidopurines
ΑU
     Baker, Bernard Randall; Joseph, J. P.; Schaub, R. E.
PA
     American Cyanamid Co.
DT
     Patent
     PATENT NO.
                                DATE
                   KIND
       2852505
PΙ
                                1958
                                                      6997-08-6 14365-44-7
ΙT
       72 - 94 - 6
                 3068-34-6
                             6044-48-0
                                          6088-33-1
     21299-78-5
                 22738-78-9
                             34522-42-4
                                          71528-47-7
                                                      96535-48-7
                                                                  97790-70-0
                 98144-07-1
                             98177-71-0
                                          98179-13-6
                                                      98346-66-8
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                                          99672-42-1
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                 98579-00-1
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IT 98177-71-0
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RN 98177-71-0 HCAOLD

CN Adenosine, 3'-amino-N-benzyl-3'-deoxy- (6CI, 7CI) (CA INDEX NAME)

Absolute stereochemistry.

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L16 ANSWER_4_OF_5—HCAOLD COPYRIGHT 2002 ACS
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AN (CA53:8174e CAOLD)

TI aminodeoxyglycosidopurines

PA American Cyanamid Co.

DT Patent

72-94-6 IT 6044-48-0 6088-33-1 34522-42-4 71528-47-7 96535-48-7 97790-70-0 97790-71-1 98144-07-1 98177-71-0 98179-13-6 98346-66-8 98565-05-0 98579-00-1 98925-07-6 99710-31-3 99801-54-4 101811-55-6 102031-04-9 102031-05-0 109367-58-0 110441-03-7 112023-25-3 117884-13-6 119597-43-2 119622-10-5 119622-11-6 120945-44-0 121970-21-6 124107-95-5

IT 98177-71-0

RN 98177-71-0 HCAOLD

CN Adenosine, 3'-amino-N-benzyl-3'-deoxy- (6CI, 7CI) (CA INDEX NAME)

Absolute stereochemistry.

L16 ANSWER 5 OF 5 HCAOLD COPYRIGHT 2002 ACS

AN CA51:1206e CAOLD

TI reactions in sunlight with alc. NH3 - (IV) action of 4,5-diphenyl-3-benzoylisoxazole, benzoin, benzil, deoxybenzoin, and benzaldehyde, (V) reaction with N-substituted pyrroles and .omega.-desylacetophenone, (VI) reaction with indolic compds.

AU Capuano, Salvatore; Giammanco, L.

92-29-5 493-77-6 IT 86-96-4 948-65-2 1022-45-3 1666-86-0 13901-77-4 15345-47-8 20198-19-0 1917-44-8 4441-01-4 6707-63-7 98179-12-5 96535-48-7 97790-71-1 98144-07-1 98177-71-0 98565-05-0 98925-07-6 103166-35-4 98179-13-6 98221-76-2 .98346-67-9 98177-71-0 ΙT

RN 98177-71-0 HCAOLD

CN Adenosine, 3'-amino-N-benzyl-3'-deoxy- (6CI, 7CI) (CA INDEX NAME)

Absolute stereochemistry.

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FILE COVERS 1907 - 7 Aug 2002 VOL 137 ISS 6 FILE LAST UPDATED: 6 Aug 2002 (20020806/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L24 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2002 ACS

AN 1963:428787 HCAPLUS

DN 59:28787

OREF 59:5251g-h,5252a

TI Synthesis and reactions of 3'-amino-3'-deoxyribosides of 6-chloropurine

AU Goldma, L.; Marsic, J. W.

CS Am. Cyanamid Co., Pearl River, NY

SO J. Med. Chem. (1963), 6(4), 413-23

DT Journal

LA Unavailable

CC 43 (Carbohydrates)

GI For diagram(s), see printed CA Issue.

AB Blocked 3'-amino-6-chloronucleosides [I (R = phthalimido,.beta.-anomer)

(II) and I (R = AcNH) (III)] were synthesized and found to be excellent intermediates for the prepn. of analogs of the puromycin aminonucleoside (IV). Chloride was displaced from II and III by primary and secondary amines in methanol with simultaneous removal of the O-benzoyl groups. Primary amines removed the N-phthaloyl group of II, whereas secondary amines opened the N-phthaloyl group to produce N,N,N'-trisubstituted phthalamides. Primary amines cleaved the latter phthalamides to produce unblocked 3'-amino-3'-deoxynucleosides. Diisopropylamine failed to displace chloride from II and failed to open the phthalimide function. Several analogs of the puromycin aminonucleoside were found to possess enhanced trypanocidal activity. The application of proton magnetic resonance spectral measurements to detn. of anomeric configuration in ribofuranoses is discussed.

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L24 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS
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AN 1962:451930 HCAPLUS

DN 57:51930

OREF 57:10372h-i

TI Nucleotide and polynucleotide synthesis in Trypanosoma cruzi. VII. Precursors of the pyrimidine nucleotides

AU Roy, L.; Fernandes, J. F.

CS Univ. Sao Paulo, Brazil

SO Exptl. Parasitol. (1962), 12, 55-60

DT Journal

LA Unavailable

CC 68 (Nonmammalian Biochemistry)

AB The rate of incorporation of uracil-C14 (I) and orotic acid-C14 (II) into the acid-sol. nucleotides (III) and mixed nucleic acid pyrimidines was detd. The rate of incorporation of I was much greater than that of II, principally in the III fraction. Total utilization of I is 5-7% of the added I, compared to 0.25% with II. 6-Propyl-2-thiouracil inhibits slightly the conversion of uridylic acid (IV) into cytidylic acid (V), but has very little effect on the incorporation of I into IV. 5-Fluorouracil strongly inhibits incorporation of I into IV but does not affect the conversion of IV into V.

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L24 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS
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AN 1959:45326 HCAPLUS

DN 53:45326

OREF 53:8175d-i,8176a-i,8177a-g

TI Aminodeoxyglycosidopurines

IN Baker, Bernard R.; Joseph, Joseph P.; Schaub, Robert E.

PA American Cyanamid Co.

DT Patent

LA Unavailable

CC 10G (Organic Chemistry: Heterocyclic Compounds)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI US 2852505 19580916 US

AB Potential chemotherapeutic aminonucleosides, aminodeoxyglycosidopurines (I), have been prepd. I are related to the glycosidopurines (nucleosides) but are active in the treatment of Trypanosomiasis in cattle, and may be referred to as aminonucleosides. A new and novel method of prepn. of I is to treat a mixt. contg. a heavy metal salt of a purine and an acylated amino sugar with TiCl4 in an inert hydrocarbon or halogenated hydrocarbon solvent at 50-90.degree. Thus, 2-methylthio-6-dimethylamino-9-(2,5-di-O-benzoyl-3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine (II) was prepd. as follows. To 5.1 g. Me 2,5-di-O-benzoyl-3-acetamido-3-deoxy-.beta.-D-ribofuranoside in 100 ml. of MeOH was added 1.8 ml. N NaOMe in MeOH, the soln. refluxed 30 min., and evapd. to dryness in vacuo to leave Me . 3-acetamido-3-deoxy-.beta.-D-ribofuranoside as a glass. This was dissolved in 50 ml. dry pyridine and treated with 5.1 ml. BzCl at

5-7.degree.. After 68 hrs. in a closed container at 3.degree., the mixt. was dild. with 200 ml. H2O and extd. with 3 50-ml. portions CHCl3, the exts. washed with aq. NaHCO3, dried, treated with C, evapd. to dryness in vacuo, and the residue pptd. from 14 ml. benzene by addn. of heptane to turbidity to give 64% Me 2,5-di-O-benzoyl-3-acetamido-3-deoxy-.beta.-Dribofuranoside (III), m. 139-41.degree.. To 5 g. III was added 15 ml. concd. aq. HCl, the mixt. stirred at 50.degree. 25 min. and then dild. with 175 ml. of ice water, extd. with 175 ml. CHCl3 in 3 portions, the ext. treated as before, and the residue crystd. from 10 ml. EtOAc by addn. of heptane to turbidity to give 52% 2,5-di-O-benzoyl-3-acetamido-3-deoxy-Dribose (IV), m. 153-4.degree., [.alpha.]D 108.degree. (pyridine). IV (2.5 g.) in 5 ml. pyridine and 5 ml. Ac20 was heated on a steam bath 1 hr., dild. with 25 ml. ice water, extd. with 55 ml. CHCl3, and the ext. treated as before to leave 98% gummy solid, m. 127-31.degree., a mixt. of .alpha.and .beta.-1-(O-acetyl)-2,5-di-O-benzoyl-3-acetamido-3-deoxy-Dribofuranoside (V). Recrystn. from 16 ml. 1:1 EtOAc-heptane gave one of the isomers of V, m. 152-4.degree., [.alpha.]24D 63.degree. (pyridine). The other isomer was a noncrystallizable gum, [.alpha.]24D 84.degree. (2%, pyridine). To 990 mg. .alpha.,.beta.-mixt. of V in 8.5 ml. ethylene dichloride was added 0.30 ml. TiCl4 in 4.4 ml. of the same solvent, after refluxing 1 hr. the soln. added to a stirred mixt. of 1.25 g. 2-methylthio-6-(dimethylamino)purine mercuric chloride reaction product, 1.35 g. of diatomaceous earth, and 90 ml. ethylene chloride which had previously been dried by distn. of 20 ml. solvent, the mixt. stirred and refluxed 18 hrs., treated with 45 ml. water, stirred without further heating 15 min., filtered, the solids washed with hot CHCl3, the org. layer and the washings evapd. to dryness in vacuo, the glass dissolved in 25 ml. HCl3, washed with 25 ml. 30% aq. KI then water, the org. layer dried, treated with activated C, and evapd. to dryness in vacuo to leave 100% glass, .lambda. 282.5 m.mu. (.epsilon. 17,000) (Methyl Cellosolve), corresponding to 94% pure 2 - methylthio-6-dimethylamino-9-(2,5-di-0benzoyl-3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine. (VI). (1.28 g.) in 75 ml. Methyl Cellosolve was stirred with 2 teaspoons of desulfurizing Raney Ni on the steam bath 40 min., the soln. filtered hot, the catalyst washed with addnl. solvent, and the soln. evapd. to dryness in vacuo left 60% 6-dimethylamino-9-(2,5-di-O-benzoyl-3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine (VII), glass, .lambda. 275 m.mu. (.epsilon. 16,900) (Methyl Cellosolve), corresponding to 90% purity. VII (690 mg.) in 15 ml. MeOH and 0.14 ml. N NaOMe in MeOH was refluxed 30 min., evapd. to dryness in vacuo, and the residue crystd. from 3 ml. alc. to yield 30% 6-dimethylamino-9-(3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine (VIII), m. 187-8.degree., [.alpha.]D -9.9.degree. (3%, pyridine). VIII (100 mg.) in 5 ml. 0.5N Ba(OH)2 was heated on a steam bath 1 hr., the Ba(OH)2 pptd. with excess CO2, the soln. filtered, the filtrate evapd. to dryness in vacuo, the residue dissolved in 3 ml. water, filtered, the soln. evapd., and the residue triturated with 3 ml. EtOAc to give 80% 6-dimethylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 215-16.degree. (abs. EtOH), [.alpha.]25D -24.6.degree. (H2O), .lambda. 276 m.mu. (.epsilon. 18,900) (pH 7). The following were prepd. by similar techniques: 2-methylthio-6-dimethylamino-9-(2-acetamido-2-deoxy-3,4,6-tri-O-acetyl-.beta.-D-glucopyranosyl)purine, m. 238-40.degree., [.alpha.]24D 8.5.degree. (1.8%, CHCl3); 1-chloro-2-acetamido-2-deoxy-3,4,6-tri-0-acetyl-.alpha.-D-glucopyranoside, m. 125-6.degree. (decompn.); 2-methylthio-6-dimethylamino-9-(2-acetamido-2-deoxy-.beta.-Dglucopyranosyl)purine, m. 245-7.degree. (decompn.); 6-dimethylamino-9-(2acetamido-2-deoxy-3,4,6-tri-O-acetyl-.beta.-D-glucopyranosyl)purine; 6-dimethylamino-9-(2-acetamido-2-deoxy-.beta.-D-glucopyranosyl)purine, m. about 170.degree.; 2,5-di-O-benzoyl-3-acetamido-3-deoxy-D-arabinose, m. 152-3.degree., [.alpha.]D -25.6.degree. (CHCl3); 2-methylthio-6dimethylamino-9-(2,5-di-O-benzoyl-3-acetamido-3-deoxy-.alpha.-Darabinofuranosyl)purine, glass; 6-dimethylamino-9-(2,5-di-O-benzoyl-3acetamido-3-deoxy-.alpha.-D-arabinofuranosyl)purine, glass; 6-dimethylamino-9-(3-acetamido-3-deoxy-.alpha.-D-arabinofuranosyl)purine,

m. 189-91.degree. [.alpha.]D 102.degree. (water); 6-dimethylamino-9-(2,5di-O-acetyl-3-acetamido-3-deoxy-.alpha.-D-ribofuranosyl)purine, glass; 6-dimethylamino-9-(3-acetamido-3-deoxy-.alpha.-D-ribofuranosyl)purine, m. 239-40.degree., [.alpha.]25D 115.degree. (H2O); 6-dimethylamino-9-(3-amino-3-deoxy-.alpha.-D-ribofuranosyl)purine, m. 235.degree. (decompn.); 6-amino-9-(3-acetamido-3-deoxy-.alpha.-D-ribofuranosyl)purine, m. 279.degree. (decompn.), [.alpha.]24D 60.degree. (0.1N HCl); 6-amino-9-(3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 234-44.degree. (decompn.), [.alpha.]25D 11.6.degree. (0.1N HCl); 6-dimethylamino-9-(3-phthalimido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 274-5.degree. (decompn.); 6-chloro-9-(2,5-di-O-benzoyl-3-phthalimido-3deoxy-.beta.-D-ribofuranosyl)purine (contg. 0.5 mole of EtOAc), sinters to a glass at 76-7.degree., m. 100-5.degree. to a glass, [.alpha.]24D -60.9.degree. (CHCl3); 6-chloro-9-(2,5-di-O-benzoyl-3-acetamido-3-deoxy-Dribofuranosyl)purine, light tan glass, [.alpha.]24.5D 39.2.degree. (EtOH); 6-dimethylamino-9-(3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 186-9.degree., [.alpha.]25D -8.1.degree. (pyridine); 6-diethylamino-9-(3acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 214.5-15.0.degree., [.alpha.]24.5D -26.0.degree. (EtOH); 6-diethylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 181-3.degree., [.alpha.]24.5D -45.8.degree. (EtOH); 6-methylamino-9-(3-amino-3-deoxy-.beta.-Dribofuranosyl)purine, m. 228.5-30.5.degree., [.alpha.]24D -29.6.degree. (water); 6-isobutylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 171.5-2.5.degree., [.alpha.]24D -25.3.degree. (water); 6-dimethylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 214-16.degree.; 6-(1-piperidyl)-9-(3-[2-(1-piperidylcarbonyl)benzamido]-3deoxy-.beta.-D-ribofuranosyl)purine, tan glass; 6-(1-piperidyl)-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine (hemihydrate), m. 189.5-90.0.degree., [.alpha.]24D -44.0.degree. (EtOH); 6-dipropylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, plates m. 168.5-9.5.degree., [.alpha.]24D -45.0.degree. (MeOH); 2,6-dichloro-9-(2,5-di-O-benzoyl-3-phthalimido-3-deoxy-Dribofuranosyl)purine, sintered to a glass at 58-60.degree. and m. 95-105.degree. to a glass, [.alpha.]28D -57.0.degree. (CHCl3); 6-methylamino-9-(3-acetamido-3-deoxy-.alpha.(and .beta.)-Dribofuranosyl)purine, .alpha.-form, needles, m. 257-8.degree. (decompn.), [.alpha.]28D 114.0.degree. (water), .beta.-form (contg. 0.25 mole water), m. 229-30.degree. (decompn.), [.alpha.]28D -2.0.degree. (water); 6-methylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 230-1.degree., [.alpha.]25D -26.9.degree. (water); 6-diethylamino-9-(3amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 181.5-2.5.degree., [.alpha.]25D -44.0.degree. (EtOH); 6-dibutylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 189.5-90.5.degree., [.alpha.]26D -38.8.degree. (MeOH); 6-furfurylamino-9-(3-amino-3-deoxy-.beta.-Dribofuranosyl)purine, m. 157.5-8.5.degree., [.alpha.]26D -43.5.degree. (water); 6-benzylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 174.5-5.5.degree., [.alpha.]25D -41.8.degree. (MeOH); 6-methoxy-9-(3-phthalimido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 243-4.degree. (decompn.), [.alpha.]26D -113.0.degree. (MeOH); 6-diamylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 172-3.2.degree., [.alpha.]26D -43.7.degree. (EtOH); 6-diheptylamino-9-(3amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 137-8.degree., [.alpha.]25d -36.9.degree. (EtOH); 6-mercapto-9-(2,5-di-O-benzoyl-3phthalimido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 233-8.degree., [.alpha.]26D -105.0.degree. (pyridine); 2-chloro-6-dipropylamino-9-(3amino-3-deoxy-D-ribofuranosyl)purine, plates, m. 164.5-5.5.degree. [.alpha.]25D -23.6.degree. (EtOH); 6-methylthio-9-(2,5-di-0-benzoyl-3-di-0-benzphthalimido-3-deoxy-D-ribofuranosyl)purine, m. 157-9.degree. and 195.5-196.5.degree., [.alpha.]25D -88.4.degree. (CHCl3); 9-(2,5-di-O-benzoyl-3-phthalimido-3-deoxy-D-ribofuranosyl)purine (hydrate), m. 117.5-22.degree., [.alpha.]25D -61.7.degree. (CHCl3);. 6-decylamino-9-(3-amino-3-deoxy-.beta:-D-ribofuranosyl)purine, m. 138-9.degree., [.alpha.]25D -40.0.degree. (EtOH); 6-diallylamino-9-(3-

amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 161-3.5.degree., [.alpha.]25D -43.1.degree. (MeOH); 6-(4-morpholinyl)-9-(3-[.omicron.-(4morpholinylcarbonyl)benzamido]-3-deoxy-.beta.-D-ribofuranosyl)purine, tan glass, [.alpha.]24D -16.6.degree. (EtOH); 6-butylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, (contg. 0.25 mole water), m. 171-2.degree., [.alpha.]25D -43.7.degree. (EtOH); 6-cyclohexylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, glass, [.alpha.]25D -42.5.degree. (EtOH); 6-chloro-9-(2,3-di-O-benzoyl-5-phthalimido-5-deoxy-.beta.-Dribofuranosyl)purine, fluffed glass; 9-(2,3-di-O-benzoyl-5-phthalimido-5deoxy-.beta.-D-ribofuranosyl)purine, m. 153-5.degree.; 9-(5-amino-5-deoxy-.beta.-D-ribofuranosyl)purine, m. 148-55.degree. (decompn.); 6-dimethylamino-9-(2,3-di-0-benzoyl-5-phthalimido-5-deoxy-.beta.-D-ribofuranosyl)purine, m. 230-2.degree.; 6-dimethylamino-9-(5amino-5-deoxy-.beta.-D-ribofuranosyl)purine, m. 132-3.degree.; 2-methylthio-6-dimethylamino-9-(2-acetamido-2-deoxy-4,6-0-benzylidene-.beta.-D-glucopyranosyl)purine, tan crystals, m. 254-5.degree. (decompn.); 2-methylthio-6-dimethylamino-9-[2-acetamido-2-deoxy-3-mesyl-4,6-(0benzylidene)-.beta.-D-glucopyranosyl] purine, gray crystals, m. 201-2.degree.; 2-methylthio-6-dimethylamino-9-[2-acetamido-2-deoxy-4,6-(0benzylidene)-.beta.-D-allopyranosyl]purine, m. 229-31.degree. (decompn.); 2-methylthio-6-dimethylamino-9-[2-acetamido-2-deoxy-3-(0-acetyl)-4,6-(0benzylidene)-.beta.-D-allopyranosyl] purine, m. 204-5.degree. (decompn.); 2-methylthio-6-dimethylamino-9-(2-acetamido-2-deoxy-3,4,6-tri-0-acetyl-.beta.-D-allopyranosyl)purine, m. 197-8.degree.; 6-dimethylamino-9-(2acetamido-2-deoxy-.beta.-D-allopyranosyl)purine, m. 250-3.degree. (decompn.); 6-dimethylamino-9-(2-amino-2-deoxy-.beta.-Dallopyranosyl)purine, m. 110-12.degree.; Et 2-acetamido-2-deoxy-3,5,6-tri-O-benzoyl-.alpha.-D-glucothiofuranoside, m. 113-14.degree.; 3-acetamido-3-deoxy-D-altrose diethylmercaptal, m. 133-5.degree.; 3-acetamido-3-deoxy-6-(O-trityl)-D-altrose diethylmercaptal, m. 91-2.degree.; 2-acetamido-2-deoxy-4-(O-formyl)-5-(O-trityl)-D-ribose, m. 140-3.degree., 6-dimethylamino-9-(3-amino-3-deoxy-.beta.-Dallopyranosyl)purine hemihydrate, m. 178-80.degree., [.alpha.]25D -17.9.degree. (water); 2-methylthio-6-dimethylamino-9-(3-acetamido-3-deoxy-.beta.-D-arabinofuranosyl)purine, m. 193-5.degree., [.alpha.]25D 13.degree. (2%, pyridine); 9-(3-phthalimido-3-deoxy-.beta.-Dribofuranosyl)adenine, buff-colored crystals, m. 228-9.degree., [.alpha.]24D -175.degree. (0.6%, EtOH); and other similar compds. which were gums, syrups, and glasses and were not described further.

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L24 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS
     1959:45325 HCAPLUS
ΑN
DN
     53:45325
OREF 53:8174b-i,8175a-d
     Aminodeoxyglycosidopurines
ΙN
     Goldman, Leon; Marsico, Joseph W.
     American Cyanamid Co.
PA
DT
     Patent
LA
     Unavailable
CC
     10G (Organic Chemistry: Heterocyclic Compounds)
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                     ____
PΙ
     US 2852506
                            19580916
                                           US
AΒ
     The condensation of a blocked deriv. of a glycoside with a suitably
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AB The condensation of a blocked deriv. of a glycoside with a suitably substituted purine results in aminodeoxyglycosidopurines (I). Thus, 6-chloro(chloromercuri)purine (II) and bis(6-chloropurinyl)mercury (III) were prepd. by adding 3.091 g. 6-chloropurine to 50 ml. 0.4 Naq. NaOH at 75.degree. followed by immediate addn. of a hot soln. of 5.430 g. HgCl2 in 15 ml. EtOH with stirring. The crystals which formed were cooled, filtered, water-washed, and dried at 100.degree.. The yield of light tan crystals, analyzing for 15% II and 85% III was 96%. To a stirred refluxing suspension of a mixt. (6.84 g.) of 82.5% III and 17.5% II in 350

ml. of anhyd. xylene was added a hot soln. of 11.86 g. 2,5-di-O-benzoyl-3-phthalimido-3-deoxy-.beta.-D-ribofuranosyl chloride in 125 ml. anhyd. xylene, the suspension refluxed and stirred 5 hrs., filtered while hot, the filter cake washed with hot CHCl3, the combined filtrate and wash washed with 30% aq. KI and then water, the soln. dried, and evapd. in vacuo to give 13.36 g. 6-chloro-9-(2,5-di-0-benzoyl-3phthalimido-3-deoxy-.beta.- D-ribofuranosyl) purine (IV), recrystd. from EtOAc-hexane to 7.18 g. IV contg. 0.5 mole EtOAc, sintered at 76-7.degree. to an opaque glass and m. 100-105.degree., [.alpha.]24D -60.9.degree. (CHCl3), .lambda. 263 m.mu. (.epsilon. 12,100) (0.1N HCl), .lambda. 263 m.mu. (.epsilon. 10,700) (EtOH and 0.1N NaOH). IV (0.536 g.), 1 ml. Me2NH, and 10 ml. anhyd. MeOH was heated in a sealed tube 2 hrs. on a steam bath, the red-brown soln. evapd. in vacuo, the gummy residue dissolved in aq. EtOH, evapd. to dryness in vacuo, the residue dissolved in 40 ml. 50% MeOH, 38.4 ml. of the soln. stirred with Amberlite RA-400 (OH) resin, the suspension filtered, and the filtrate evapd. in vacuo to yield 96% 6-dimethylamino-9-(3-acetamido-3-(deoxy-D-ribofuranosyl)purine (V), m. 186-9.degree. (alc.), [.alpha.]25D -8.1.degree. (pyridine), .lambda. 267 m.mu. (.epsilon. 17,700) (0.1N HCl), .lambda. 275 m.mu. (.epsilon. 17,500) (EtOH), .lambda. 275 m.mu. (.epsilon. 17,800) (0.1N Similarly the following were prepd.: 6-chloro-9-(2,5-di-O-benzoyl-3-acetamido-3-deoxy-D-ribofuranosyl)purine, light tan glass, [.alpha.]24.5D 39.2.degree. (EtOH); 6-dimethylamino-9-(3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 186-9.degree., [.alpha.]25D -8.1.degree. (pyridine); 6-diethylamino-9-(3-acetamido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 214.5-15.0.degree., [.alpha.]24.5D -26.0.degree. (EtOH); 6-diethylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 181-3.degree. [.alpha.]24.5D -45.8.degree. (EtOH); 6-methylamino-9-(3amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 228.5-30.5.degree., [.alpha.]24D -29.6.degree. (water); 6-isobutylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 171.5-2.5.degree., [.alpha.]24D -25.3.degree. (water); 6-dimethylamino-9-(3-amino-3-deoxy-.beta.-Dribofuranosyl)purine, m. 214-16.degree. 6-(1-piperidyl)-9-(3-[o-(1piperidylcarbonyl)benzamido]-3-deoxy-.beta.-D-ribofuranosyl)purine, tan glass; 6-(1-piperidyl)-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine hemihydrate, m. 189.5-90.0.degree., [.alpha.]24D -44.0.degree. (EtOH); 6-dipropylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, plates, m. 168.5-9.5.degree., [.alpha.]24D -45.0.degree. (MeOH); 2,6-dichloro-9-(2,5-di-O-benzoyl-3-phthalimido-3-deoxy-Dribofuranosyl)purine, sintered at 58-60.degree. and m. 95-105.degree., [.alpha.]28D -57.0.degree. (CHCl3); 6-methylamino-9-(acetamido-3-deoxy-Dribofuranosyl)purine .alpha.-form (contg. 0.25 mole water), m. 257-8.degree., [.alpha.]28D 114.degree. (water), .beta.-form (contg. 0.25 mole water), m. 229-30.degree. (decompn.), [.alpha.]28D -2.0.degree. (water); 6-methylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 230-1.degree., [.alpha.]25D -26.9.degree. (water); 6-diethylamino-9-(3amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 181.5-2.5.degree., [.alpha.]25D -44.0.degree. (EtOH); 6-dibutylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 189.5-90.5.degree., [.alpha.]26D -38.8.degree. (MeOH); 6-furfuryl-9-(3-amino-3-deoxy-.beta.-Dribofuranosyl)purine, m. 157.5-8.5.degree., [.alpha.]26D -43.5.degree. (water); 6-benzylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 174.5-5.5.degree., [.alpha.]25D -41.8.degree. (MeOH); 6-methoxy-9-(3-phthalimido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 243-4.degree. (decompn.), [.alpha.]26D -113.0.degree. (MeOH); 6-diamylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 172-3.2.degree., [.alpha.]26D -43.7.degree. (EtOH); 6-diheptylamino-9-(3amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 137-8.degree., [.alpha.]25D -36.9.degree. (EtOH); 6-mercapto-9-(2,5-di-O-benzoyl-3phthalimido-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 233-8.degree., [.alpha.]26D -105.degree. (pyridine); 2-chloro-6-propylamino-9-(3-amino-3deoxy-D-ribofurancsyl)purine, plates, m. 164.5-5.5.degree., [.alpha.]25D -23.6.degree. (EtOH); 6-methylthio-9-(2,5-di-O-benzoyl-3-phthalimido-3-

deoxy-D-ribofuranosyl)purine, partially m. 157-9.degree. and m. 195.5-6.5.degree., [.alpha.]25D -88.4.degree. (CHCl3); 9-(2,5-di-O-benzoyl-3-phthalimido-3-deoxy-D-ribofuranosyl)purine (hydrate), m. 117.5-22.degree., [.alpha.]25D -61.7.degree. (CHCl3); 6-decylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 138-9.degree., [.alpha.]25D -40.0.degree. (EtOH); 6-diallylamino-9-(3amino-3-deoxy-.beta.-D-ribofuranosyl)purine, m. 161-3.5.degree., [.alpha.]25D -43.1.degree. (MeOH); 6-(4-morpholinyl)-9-(3-[0-(4morpholinylcarbonyl)benzamido]-3-deoxy-.beta.-D-ribofuranosyl)purine, tan glass, [.alpha.]24D -16.6.degree. (EtOH); 6-butylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine (contg. 0.25 mole water), m. 171-2.degree., [.alpha.]25D -43.7.degree. (EtOH); 6-cyclohexylamino-9-(3-amino-3-deoxy-.beta.-D-ribofuranosyl)purine, glass, [.alpha.]25D -42.5.degree. (EtOH); 9-(2,3-di-O-benzoyl-5-phthalimido-5-deoxy-.beta.-D-ribofuranosyl)purine, m. 153-5.degree.; 9-(5-amino-5-deoxy-.beta.-D-ribofuranosyl)purine, decomp. 148-55.degree.; Et 2-acetamido-2-deoxy-3,5,6-tri-O-benzoyl-.alpha.-D-glucothiofuranoside, m. 113-14.degree.; and several other compds. without phys. props.

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AN 1957:5534 HCAPLUS

DN 51:5534

OREF 51:1206e-i,1207a-b

- TI Reactions in sunlight with alcoholic ammonia. IV. The action on 4,5-diphenyl-3-benzoylisoxazole, benzoin, benzil, deoxybenzoin, and benzaldehyde
- AU Capuano, Salvatore; Giammanco, Lorenzo
- CS Univ. Palermo, Italy
- SO Gazz. chim. ital. (1956), 86, 109-18
- DT Journal
- LA Unavailable
- CC 10 (Organic Chemistry)
- GI For diagram(s), see printed CA Issue.
 - cf. C.A. 47, 8061f; 50, 7807f. Although the mechanism of the action of alc. NH3 on PhC:CPh. N: CPh.C: NOH (I) in sunlight was not explained in the previous work, it seemed possible that the reaction started by hydrolysis and loss of NH3 to HOCPh: CPhCBz:NOH, which gave BzPhCHCBz:NOH (II), and that the subsequent reactions depend on the formation of II. This induced C. and G. to test the same reaction with 4,5-diphenyl-3benzoylisoxazole (III) because III can be regarded as the anhydride of I. III (40 g.) added to 1000 cc. 95% EtOH satd. with dry NH3, the mixt. allowed to stand closed in sunlight for 50 days, in which time the initially insol. portion dissolves, the soln. becomes wine-red, and (NH4)2CO3 or H2NCO2NH4 is deposited, the soln. concd. in vacuo, the brown-red oil allowed to crystallize, the mass extd. with hot H2O, EtOH added to the brown oil, the solidified yellow mass washed with EtOH, and purified by dioxane, gives 2,4-diphenyl-6-hydroxy-s-triazine (IV), m. 293.degree.. In addn. to the method of Pinner [Ber. 23, 2920 (1893)], IV can be synthesized by heating (H2N)2CO and HN:CPhNH2.HCl (2 moles) until fused, keeping fused 5 min. (NH3 and NH4Cl are evolved), cooling, adding H2O, boiling the mixt., filtering hot, washing the residue exhaustively with hot H2O, and crystg. from EtOH. The mother liquor of the ext. of the mass obtained by concn. of the original reaction liquid in the prepn. of IV, evapd., the oil allowed to crystallize, and purified by PhMe, give The mother liquor contains BzOH. BzCHPhOH (40 g.) added as was III to alc. NH3, and the mixt. exposed to sunlight 4 months, gives a yellow soln. contg. an insol. cryst. product; the latter, washed with EtOH and purified by AcOH, gives 2,4,6-triphenyl-s-triazine (V), m. 235.degree.. The yellow mother liquor, evapd. in vacuo, and the oil purified, yields BzNH2. Bz2 (20 g.) and 1000 cc. alc. NH3 give an orange-yellow soln., which, exposed 3 months to sunlight, and the ppt. purified by EtOH, give V. The mother liquor contains BzNH2 and BzOH. PhCH2Bz (20 g.) and 1000 cc. alc. NH3 give a yellow soln., which, exposed

6 months to sunlight, yields V, BzNH2, and BzONH4. Bz2 or BzCH-PhOH or PhCH2Bz in alc. NH3, exposed 1 month to sunlight, the product concd. in vacuo, and the residue steam distd., gives BzH. BzH (20 g.) and 400 cc. alc. NH3, exposed (while closed) to sunlight for 80 days, give a yellow soln. and cryst. deposit; the mixt. (odor of NH3 and BzH) filtered, and the residue purified by hot EtOH, give PhCH(N:CHPh)2 (VI), m. 110.degree.. Treated again with alc. NH3, VI dissolves slowly and by exposure to sunlight for 3 months, V separates. Possible mechanisms of the various reactions are discussed. It is concluded that the formation of triazinic, imidazolic, and pyrimidinic compds. from pyrroles and carbonylisoxazoles is a synthesis of general application which involves the initial formation of simple mol. fragments (BzH, HN:CPhNH2, etc.), the identification of which indicates that the heterocyclic compds. first undergo oxidation, hydrolysis, and aminolysis.

=> =>

=> d bib abs hitstr 120 retable

L20 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:752300 HCAPLUS

DN 136:48571

- TI Neoceptor concept based on molecular complementarity in GPCRs: A mutant adenosine A3 receptor with selectively enhanced affinity for amine-modified nucleosides
- AU Jacobson, Kenneth A.; Gao, Zhan-Guo; Chen, Aishe; Barak, Dov; Kim, Soon-Ai; Lee, Kyeong; Link, Andreas; Van Rompaey, Philippe; van Calenbergh, Serge; Liang, Bruce T.
- CS Molecular Recognition Section Laboratory of Bioorganic Chemistry, National Institute of Diabetes and Digestive and Kidney Diseases National Institutes of Health, Bethesda, MD, 20892, USA
- SO Journal of Medicinal Chemistry (2001), 44(24), 4125-4136 CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LA English
- AB Adenosine A3 receptors are of interest in the treatment of cardiac ischemia, inflammation, and neurodegenerative diseases. In an effort to create a unique receptor mutant that would be activated by tailor-made synthetic ligands, we mutated the human A3 receptor at the site of a crit. His residue in TM7, previously proposed to be involved in ligand recognition through interaction with the ribose moiety. The H272E mutant receptor displayed reduced affinity for most of the uncharged A3 receptor agonists and antagonists examd. For example, the nonselective agonist la was 19-fold less potent at the mutant receptor than at the wild-type receptor. The introduction of an amino group on the ribose moiety of adenosine resulted in either equipotency or enhanced binding affinity at the H272E mutant relative to wild-type A3 receptors, depending on the position of the amino group. 3'-Amino-3'-deoxyadenosine proved to be 7-fold more potent at the H272E mutant receptor than at the wild-type receptor, while the corresponding 2'- and 5'-amino analogs did not display significantly enhanced affinities. An 3'-amino-N6-iodobenzyl analog showed only a small enhancement at the mutant (Ki = 320 nM) vs wild-type receptors. The 3'-amino group was intended for a direct electrostatic interaction with the neg. charged ribose-binding region of the mutant receptor, yet mol. modeling did not support this notion. This design approach is an example of engineering the structure of mutant receptors to recognize synthetic ligands for which they are selectively matched on the basis of mol. complementarity between the mutant receptor and the ligand. We have termed such engineered receptors "neoceptors", since the ligand recognition profile of such mutant receptors need not correspond to the

profile of the parent, native receptor.

382156-70-9P

ΙT

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (mutant adenosine A3 receptor with selectively enhanced affinity for amine-modified nucleosides)

RN 382156-70-9 HCAPLUS

CN Adenosine, 3'-amino-3'-deoxy-N-[(3-iodophenyl)methyl]- (9CI) (CA INDEX NAME)

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L20
    ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2002 ACS
    2001:247348 HCAPLUS
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AN

DN 134:266520

- TΤ Preparation of nucleosides as adenosine receptors, antidiabetics, enzyme inhibitors, and for the treatment of ischemia
- ΙN Masamune, Hiroko; Deninno, Michael Paul; Scott, Robert William
- Pfizer Products Inc., USA PA
- SO PCT Int. Appl., 194 pp. CODEN: PIXXD2

DTPatent

LA English

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			CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
			HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	PL,	PT,	RO,	RU,
			SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
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			CF,	CG,	CI,	•	GΑ,				•		-	•				
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GΙ

Ι

Nucleosides I were prepd. as adenosine receptors, antidiabetics, enzyme AB inhibitors, and for the treatment of ischemia, wherein X is oxy, methylene or thio; Y is CH or N; Z is H, alkyl, alkyloxy, trifluoromethyl or halo; R1 is hydroxymethyl, alkoxymethyl, cycloalkoxymethyl, carboxy, alkoxycarbonyl, cycloalkoxycarbonyl, 1,1-aminoiminomethyl, 1,1-(mono-N- or di-N, N- alkylamino) iminomethyl, 1,1-(mono-N- or di-N, Ncycloalkylamino)iminomethyl, carbamoyl, mono-N- or di-N,Nalkylaminocarbonyl, mono-N- or di-N,N- cycloalkylaminocarbonyl or Nalkyl-N-cycloalkylaminocarbonyl; R2 is H, alkyl or cycloalkyl; R3 is halo, trifluoromethyl, cyano, alkyl, alkyloxy, ethenyl or ethynyl; D is oxy, thio, NH, alkyloxy, alkylthio or alkylamino; G is a partially satd., fully satd. or fully unsatd. five to eight membered ring optionally having one to three heteroatoms selected independently from oxygen, sulfur and nitrogen, or, a bicyclic ring consisting of two fused partially satd., fully satd. or fully unsatd. three to six membered rings, taken independently, optionally having one to four heteroatoms selected independently from nitrogen, sulfur and oxygen; wherein said G is optionally mono, di- or trisubstituted independently with halo, alkyl, trifluoromethyl, trifluoromethoxy, nitro, cyano, cycloalkyl, hydroxy or alkoxy or G is cyano, alkoxycarbonyl, cycloalkoxycarbonyl, amide, thioamide, alkylamine, cycloalkylamine. A3 agonists, methods of using such A3 agonists and pharmaceutical compns. contg. such A3 agonists. A3 agonists are useful for the redn. of tissue damage resulting from tissue ischemia or hypoxia. Thus, [1-(8-bromoquinolin-5-yl)-5-cyclopropyl-1H-pyrazole-4-carbonyl]guanidine was prepd. for the treatment of ischemia. ΙT 331730-00-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of nucleosides as adenosine receptors antidiabetics enzyme inhibitors and for the treatment of ischemia)

331727-55-0P 331727-57-2P 331727-58-3P 331727-59-4P 331727-60-7P 331727-61-8P 331727-65-2P 331727-66-3P 331727-67-4P 331727-68-5P 331727-69-6P 331727-70-9P 331727-71-0P 331727-72-1P 331727-73-2P

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331728-09-7P 331728-10-0P 331728-11-1P
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331728-15-5P 331728-16-6P 331728-17-7P
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331728-30-4P 331728-31-5P 331728-32-6P
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331730-01-9P 331730-02-0P 331825-98-0P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); IMF (Industrial manufacture); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
   (prepn. of nucleosides as adenosine receptors antidiabetics enzyme
   inhibitors and for the treatment of ischemia)
331728-59-7 331728-61-1 331728-62-2
RL: RCT (Reactant); RACT (Reactant or reagent)
   (prepn. of nucleosides as adenosine receptors antidiabetics enzyme
   inhibitors and for the treatment of ischemia)
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
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   (prepn. of nucleosides as adenosine receptors antidiabetics enzyme
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331730-00-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); IMF (Industrial manufacture); RCT (Reactant); SPN
(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);
PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
   (prepn. of nucleosides as adenosine receptors antidiabetics enzyme
   inhibitors and for the treatment of ischemia)
331730-00-8 HCAPLUS
.beta.-D-Ribofuranuronic acid, 3-amino-1-[6-[[[5-chloro-2-[(3-methyl-5-
isoxazolyl)methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy- (9CI)
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(CA INDEX NAME)

Absolute stereochemistry.

RETABLE Referenced Author	Year VOI	LIPG	Referenced Work	Referenced
(RAU)	12002 ,	L) (RPG)	(RWK)	File
	=+=====	==+=====	=+===============	:+=======
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L12 ANSWER 1 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331826-00-7 REGISTRY

CN Hexopyranose, 6-O-[2-[[[9-(3-azido-3-deoxy-N-methyl-.beta.-D-ribofuranuronamidosyl)-9H-purin-6-yl]amino]methyl]-4-chlorophenyl]-1,2:3,4-bis-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C30 H36 C1 N9 O9

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE

134:266520 A

L12 ANSWER 10 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331729-00-1 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-azido-1-[6-[[[5-chloro-2-[(4-methyl-1,2,3-thiadiazol-5-yl)methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H22 Cl N11 O4 S

SR CA

LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1: 134:266520 REFERENCE

ANSWER 20 OF 137 REGISTRY COPYRIGHT 2002 ACS L12

331728-90-6 REGISTRY RN

.beta.-D-Ribofuranuronamide, 3-azido-1-[6-[[[5-chloro-2-[[(3S)-tetrahydro-CN 3-furanyl]methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl-(9CI) (CA INDEX NAME)

STEREOSEARCH FS

C23 H26 C1 N9 O5 MF

SR CA

LCSTN Files: CA, CAPLUS

Absolute stereochemistry.

- 1 REFERENCES IN FILE CA (1967 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1: 134:266520 REFERENCE

L12 ANSWER 30 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-76-8 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-azido-1-[6-[[[5-chloro-2-[(2-methylphenyl)methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl-(CA INDEX NAME)

FS STEREOSEARCH

MF C26 H26 Cl N9 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 40 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-65-5 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-azido-1-[6-[[[5-chloro-2-[2-(4-morpholinyl)ethoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C24 H29 C1 N10 O5

SR CA

LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 50 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-55-3 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[2-(2-[1,4'-bipiperidin]-1'-yl-2-oxoethoxy)-5-chlorophenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C30 H40 C1 N9 O5

SR CA

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE) 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520\

L12 ANSWER 60 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-45-1 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[2-chloro-6-[[[5-chloro-2-(phenylmethoxy)phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H25 C12 N7 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 70 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-34-8 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-[2-oxo-2-(4-tricyclo[3.3.1.13,7]dec-2-yl-1-piperazinyl)ethoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

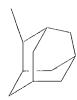
MF C34 H44 Cl N9 O5

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-A

PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 80 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-24-6 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-[2-(4-cyclopentyl-1-piperazinyl)-2-oxoethoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C29 H38 C1 N9 O5

SR CA

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 90 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-14-4 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[2-[2-(1-azetidiny1)-2-oxoethoxy]-5-chlorophenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H27 C1 N8 O5

SR CA

LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 100 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331728-04-2 REGISTRY

CN Acetic acid, [2-[[[9-(3-amino-3-deoxy-N-methyl-.beta.-D-ribofuranuronamidosyl)-9H-purin-6-yl]amino]methyl]-4-chlorophenoxy]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C20 H22 C1 N7 O6

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 110 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331727-84-5 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-(5-isothiazolylmethoxy)phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H23 C1 N8 O4 S

SR CA

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 120 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331727-73-2 REGISTRY

.beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-[[3-[2-(4-morpholinyl)ethoxy]phenyl]methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C31 H37 C1 N8 O6

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-B

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 130 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331727-63-0 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-[(4-chlorophenyl)methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H25 C12 N7 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L12 ANSWER 137 OF 137 REGISTRY COPYRIGHT 2002 ACS

RN 331727-55-0 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-[(3-methyl-5-isoxazolyl)methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H25 C1 N8 O5

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

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L34 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 331727-80-1 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-(2-thiazolylmethoxy)phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H23 C1 N8 O4 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L34 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 331727-76-5 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-(2-furanylmethoxy)phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H24 C1 N7 O5

SR CA

LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L34 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 331727-70-9 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-(3-furanylmethoxy)phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H24 C1 N7 O5

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L34 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 331727-57-2 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-(phenylmethoxy)phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H26 C1 N7 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

L34 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2002 ACS

RN 331727-55-0 REGISTRY

CN .beta.-D-Ribofuranuronamide, 3-amino-1-[6-[[[5-chloro-2-[(3-methyl-5-isoxazolyl)methoxy]phenyl]methyl]amino]-9H-purin-9-yl]-1,3-dideoxy-N-methyl- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H25 C1 N8 O5

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).

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1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:266520

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SEL AN L16 1-5 EDIT /AN /OREF

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L23 8 S E1-E5

L25

L24 5 S L23 NOT (YOSHID ? OR CASTELLANI ? OR ANGIER ?)/AU

FILE 'REGISTRY' ENTERED AT 15:39:22 ON 07 AUG 2002

FILE 'HCAOLD' ENTERED AT 15:39:37 ON 07 AUG 2002

FILE 'HCAPLUS' ENTERED AT 15:39:47 ON .07 AUG 2002

FILE 'REGISTRY' ENTERED AT 15:40:54 ON 07 AUG 2002 2 S L22,L14

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•					crane -
L26	127	s	L15	AND	CL/ELS
L27	90	S	L26	AND	5/NR
L28	83	S	L27	AND	1/CL
L29	2	S	L28	AND	C22H23CLN8O4S
L30	1	S	L29	AND	NCSC2/ES
L31	1	S	L28	AND	C23H25CLN8O5
L32	1	S	L28	AND	C25H26CLN7O4
L33	2	S	L28	AND	C23H24CLN7O5
L34	5	S	L30-	-L33	

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